KYLAND

Aquam8512A-1U
8+2G/10 port layer 3 managed rack mountable EN50155 switches

⟫ Overview

The Aquam8512A-1U series managed rack mountable onboard M12 switches, specially designed for rail industries, support up to 2 Gigabit copper ports and 8 10/100Base-TX ports. Aquam8512A-1U supports a wide range of operation temperature from -40°C to +75°C, and meets the EN50155, EN50121 and other rail industry standards. The switches support layer 3 routing functions like OSPF, redundant ring protocols including DRP and RSTP. They support VLAN and GVRP, flexible networking and partitioning, multicast, video multicast, and rich network management functions including SNMP. Aquam8512A-1U can be widely deployed in onboard PIS, CCTV systems, and industrial applications asking for anti-vibration and high EMC performance.

⟫ Key Features

Supports 10 10/100Base-TX ports or 2 Gigabit copper ports + 8 10/100Base-TX ports

M12 connector

Supports DT-Ring, STP/RSTP/MSTP, DRP ring protocol and VRRP

Supports OSPF layer 3 routing protocol

Complies with EN50155 & EN50121

⟫ Product Specifications

>Software functions
-Switching

Supports VLAN,PVLAN

Supports port trunk

Supports port flow control

Supports speed limit, broadcast storm control

-Redundancy

Supports DT-ring, DT-ring+, DT-VLAN with the recovery time<50ms

Supports DRP, with the recovery time<20ms

Supports RSTP/MSTP

Supoorts VRRP

-Multicast

Supports IGMP-snooping

Supports GMRP

Supports static multicast

-Routing

Supports OSFPv2

Supports static routing

Supports IGMP

Supports PIM-SM, PIM-DM

-Network Security

Supports IEEE 802.1x

Supports HTTPs/SSL, SFTP Client

Supports SSH

Supports RADIUS

Supports TACACS+

Supports user classification

-Service Quality

Supports ACL

Supports 802.1p and TOS/DiffServ, Supports SP,WRR queue scheduling

-Management and Maintenance

Supports Console, Telnet, WEB management methods

Supports SNMPv1/v2c/v3,Kyvison centralized management

Supports software upgrade by FTP/TFTP

Supports RMON

Supports IP/MAC conflict alarm, power failure alarm, port alarm and ring alarm

Supports port mirroring

Supports Syslog

Supports LLDP

-IP Management

Supports DHCP server/client/server option 82

-Clock management

Supports SNTP client

>Product Specifications
-Standards

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-TX)

IEEE 802.3ab(1000Base-T)

IEEE 802.3x(Flow control)

IEEE 802.1p(Class of Service)

IEEE 802.1Q(VLAN)

IEEE 802.1s(MATP)

IEEE 802.1X

-Switch Properties

Priority Queues 8

Number of VLANs 4k

VLAN ID 1–4093

Number of Multicast Groups 256

Routing Table 3.9K

MAC Table 16K

Packet Buffer 12Mbit

Packet Forwarding Rate 4.2Mpps

Switching Delay <10us

-Interface

Gigabit Port

10/100/1000Base-T(X), M12 connector (X-code)

Fast Ethernet Port

10/100Base-T(X), M12 connector (D-code)

Console Port RS232, RJ45 port

-LED

LED on front panel

Running LED: Run

Ring LED: Ring

Power LED: PWR1, PWR2

Interface LED: Link/ACT

-Power Requirements

Power input 110VDC(77-110VDC)

Power Terminal 5-pin 5.08 mm-spacing

Power Consumption < 20W

Overload Protection Support

Reverse Connection Protection Support

Redundancy Protection Support

-Physical Characteristics

Housing Metal

Cooling Nature cooling, fanless

Protection Class IP40

Dimensions 483mm×44mm×185mm

Weight <3kg

Mounting 1U rack mountable

-Environmental Limits

Operating Temperature -40°C to +75°C

Storage Temperature -40°C to +85°C

Ambient Relative Humidity 5 ~ 95% (non-condensing)

-Quality Assurance

MTBF 1576622 hrs

Warranty 5 years

-Approvals

CE, EN50155, EN50121, EN45545

-Industry Standard

EMI

FCC CFR47 Part 15,EN55022/CISPR22,Class A

EMS

IEC61000-4-2 (ESD) ±6kV (contact), ±8kV (air)

IEC61000-4-3 (RS) 20V/m (80MHz-2GHz)

IEC61000-4-4 (EFT) Power Port: ±2kV; Data Port: ±2kV

IEC61000-4-5 (Surge) Power Port: ±1kV/DM, ±2kV/CM

IEC61000-4-6 (CS) 10V (150kHz-80MHz)

IEC61000-4-8(Power frequency magnetic field)50Hz 100A/m

IEC61000-4-9(Pulsed magnetic field)300A/m

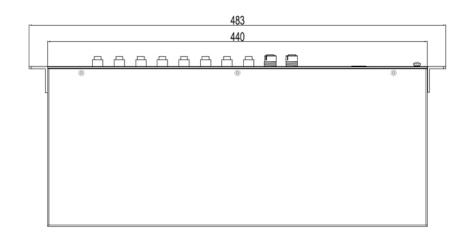IEC61000-4-29 (Voltage Short interruptions) 10ms 100%
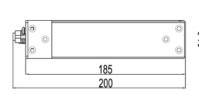
Safety

EN60950-1

Machinery

IEC61373 (Vibration and Shock)

IEC60068-2-32 (Free Fall)

Mechanical Drawing

Ordering Information

Aquam8512A-Ports-PS1-PS2

Ports

10T	10 x 10/100BASE-T(X) M12 ports
2GE8T	2 x 10/100/1000BASE-T(X) M12 ports; 8 x 10/100BASE-T(X) M12 ports;

PS1-PS2

H2-H2	110VDC(77-154VDC), redundant power inputs

Accessory Mode	Description
M12-D-4P-M	Male cable connector with M12, D-Coding, 4 Pin,10/100 Base-TX interface Connector
M12-X-8P-M	Male cable connector with M12, X-Coding, 8 Pin,10/100/1000 Base-TX Connector

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